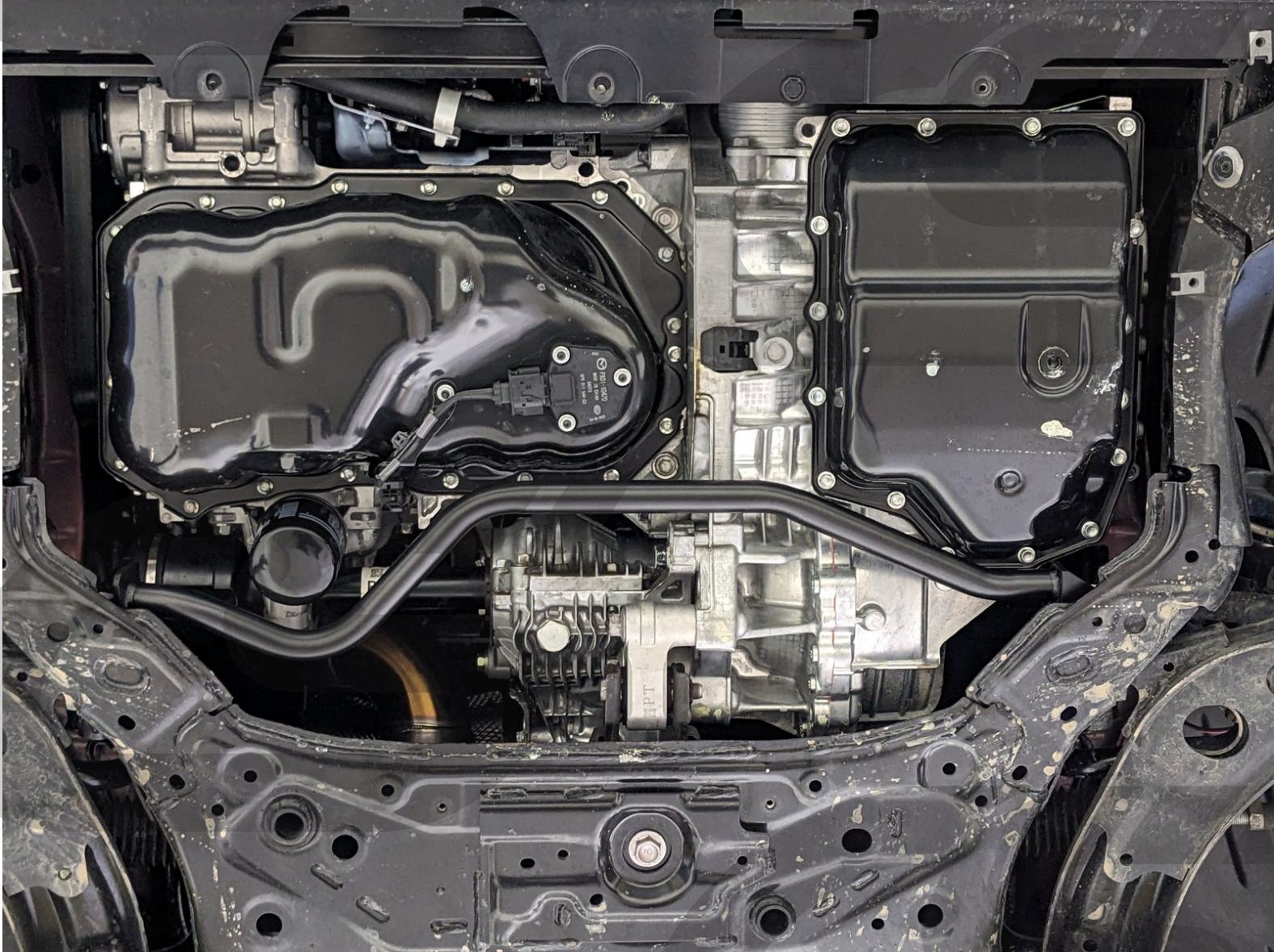


CorkSport Performance

AXO-3-223-10 AWD Lower Tie Bar

Lower Tie Bar for 2019+ AWD Mazda3, CX30

Written By: Quintin Gunn



 **TOOLS:**

- Socket, 10mm (1)
- 19mm Socket - Deep (1)
- 19mm Wrench (1)
- Torque Wrench (1)
- Breaker Bar (1)

Step 1 — Getting Started



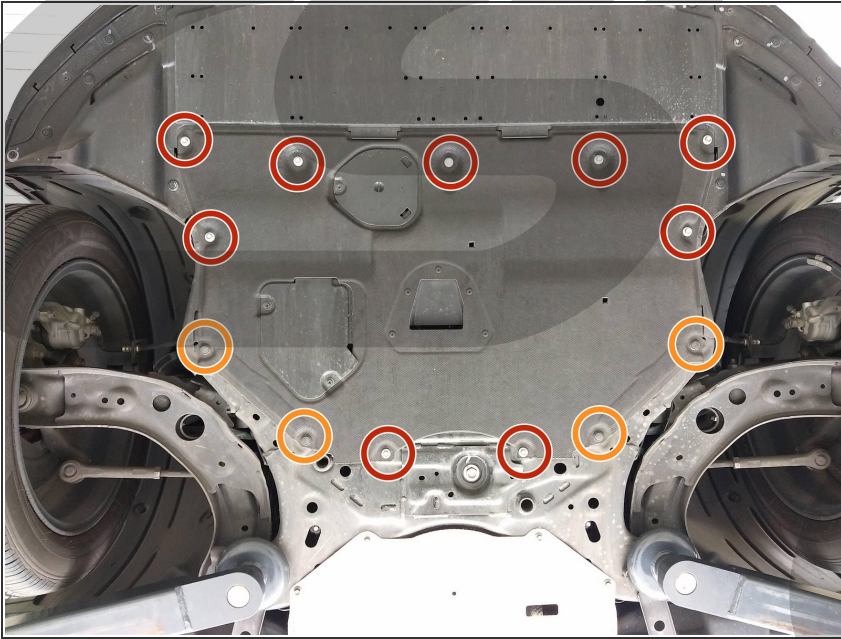
- First and foremost; THANK YOU for becoming a part of the CorkSport Family. We hope to bring you the highest level of Parts, Customer Service, & Support
- ① How To Use These Instructions
 - The instruction format will relate colored marking in the image to the color dot in the text to the right of the image
 - ① These instructions will reference the "right" and "left" sides of the vehicle as viewed from the drivers seat. It may be difficult as this will seem reversed from underneath the vehicle. For simplicity, if you have a left hand drive vehicle, the left side referenced later will be the driver's side and the right side will be the passenger's side

Step 2 — Lift the Front of the Car



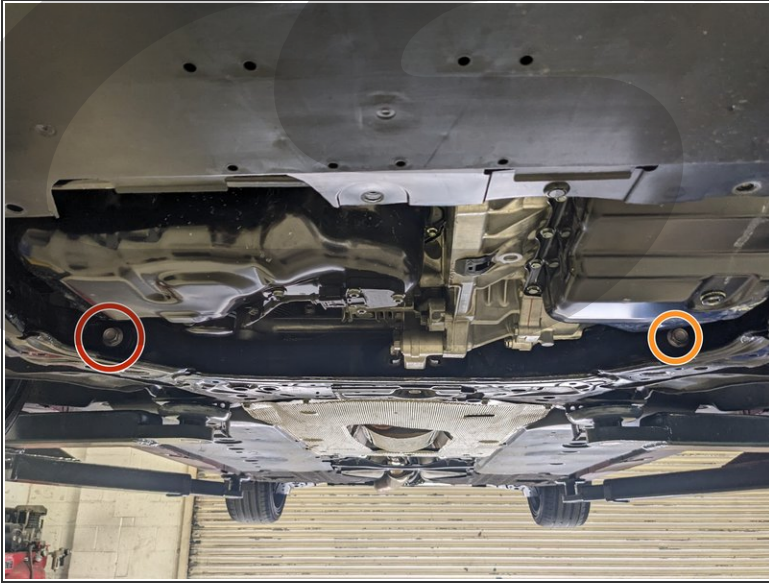
- Lift the front of the vehicle with a Hydraulic Jack and secure with Jack Stands
 - ⚠ Be sure to reference your owners manual for jack points and the jack manufacturer's instructions for proper practices

Step 3 — Remove the Underbody Tray



- Underneath the car, remove the **Nine(9) 10mm bolts** from the rear section of the engine underbody tray using a **10mm socket and ratchet**.
- With a **flathead screwdriver**, remove the **Four(4) plastic push clips** in the locations shown
- Remove the Underbody Tray from the vehicle and set aside
- ⓘ If you have a CorkSport Skid Tray installed on your vehicle, please refer to [its instructions](#) and remove in the reverse order of installation

Step 4 — Loosen the Lower Control Arm bolts



⚠ The vehicle pictured is equipped with the turbocharged engine. Naturally aspirated vehicles will appear similar

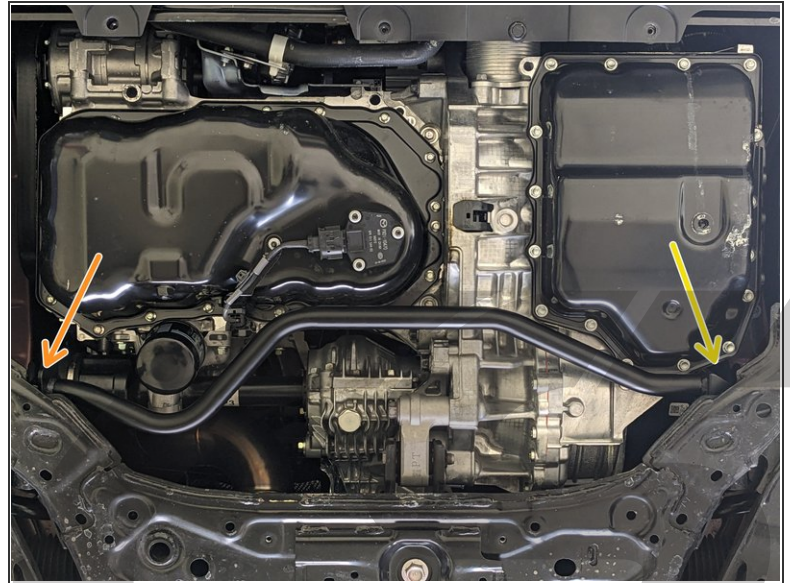
- With a **19mm Socket and Ratchet**, loosen the right side Lower Control Arm bolt
 - ⓘ Do not remove the bolt or back it out significantly. Loosen it just enough to be able to turn with your fingers. It will be backed out further in the next step
- With a **19mm Socket on a 3/8" Drive Ratchet** (or a **long ratcheting wrench as shown**), loosen the left side Lower Control Arm bolt
 - ⓘ Larger tools will interfere with the Automatic Transmission Oil Pan. A 3/8" drive ratchet, a long ratcheting wrench, or a wobble extension must be used to gain access to the bolt.
 - ⓘ Loosen this bolt approximately 1/2", but do not remove it

Step 5 — Install the Lower Tie Bar



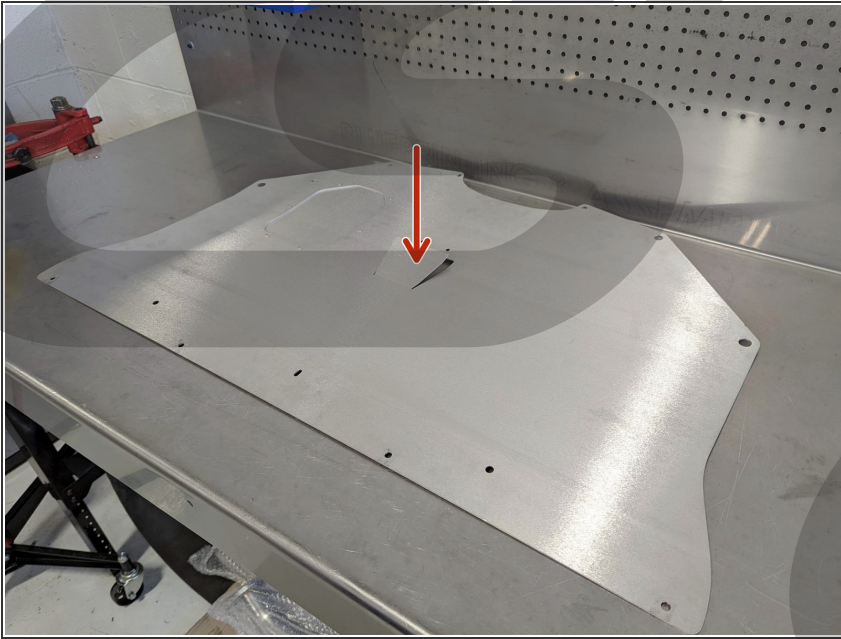
- On the left side, slide the Tie Bar around the Lower Control Arm bolt all the way until it stops
- On the other side, raise the Lower Tie Bar above the right side Lower Control Arm bolt
 - ⓘ Carefully maneuver the Lower Tie Bar around the Engine Oil Filter when performing this step
- While holding the bar above the right side bolt, loosen the bolt by 1/4"-1/2"
- Slide the Lower Tie Bar downward between the control arm bolt and the subframe
 - ⓘ If still struggling with install, the right side bolt can be temporarily fully removed during tie bar installation.
- ⚠ **We do not recommend fully removing the bolt if installing the tie bar with the vehicle on ramps.** The control arm may slip out of position and cause the vehicle to shift and/or fall. When using jack stands or a lift it is OK to fully remove this bolt
- Tighten the bolts until hand-tight. They will be fully tightened in the next step

Step 6 — Torque the Lower Control Arm bolts



- ⚠ To prevent premature wear of the Lower Control arm Bushings, the bolts must be tightened at "ride height" and with load applied
- With a floor jack and a block of wood, lift the right side front wheel until the lower control arm is approximately parallel with the ground
- ⚠ **Be careful not to lift the car off of its supports**
- Tighten the right side control arm bolt to **110ft-lbs (150Nm)**
- Lift the left side wheel the same as the right side
- With a 3/8" Torque Wrench, tighten the left side bolt to **110ft-lbs (150 Nm)**
- ⓘ If you do not have a torque wrench that fits the left side bolt, apply a wrench to the right side bolt and attempt to tighten it further. Feel the amount of force it takes to move the bolt, then apply that force to the left side bolt

Step 7 — Reinstall the Underbody Tray



- If you have a CorkSport Skid Tray, push down the cooling flap slightly to provide ~1/2in (12mm) of gap
- Reinstall the Underbody Tray in the reverse order of removal
- Safely lower the car to the ground

Step 8 — Installation Complete



- This completes your installation of the CorkSport Performance Mazda3/CX30 Lower Tie Bar!
- ⓘ Take the car for a small drive at low speed then quickly (and safely) maneuver the car back-and-forth. Listen for any strange noises or feelings while doing-so (such as squeaking, creaking, or knocking)
- ⓘ If you hear or feel anything strange, reinspect your installation
- Contact us with any questions or concerns at sales@corksport.com or (360) 260-2675.
- Share your experience using #CorkSport on Instagram, Facebook, and Twitter.